Appendix P

NEWTON's TELECOM DICTIONARY

STAY INFORMED

To be alerted by email to updates and corrections
go to www.cmpbooks.com/newton

CMPBooks
San Francisco

NEWTON's TELECOM DICTIONARY

email: Harry@HarryNewton.com
personal web site: www.HarryNewton.com
business web site: www.TechnologyInvestor.com

Published by CMP Books
An imprint of CMP Media LLC
Main office: CMP Books, 600 Harrison St., San Francisco, CA 94107 USA
Phone: 415-947-6615; Fax: 415-947-6015
Sales office: CMP Books, 12 West 21 Street, New York, NY 10010
Phone 917-305-3333; Fax 212-206-0387
www.cmpbooks.com
Email: books@cmp.com

CMP

United Business Media

For individual orders, and for information on special discounts for quantity orders,
please contact:
CMP Books Distribution Center, 6600 Silacci Way, Gilroy, CA 95020
Tel: 1-800-500-6875 or 408-848-3854; Fax: 408-848-5784
Email: cmp@rushorder.com; Web: www.cmpbooks.com

Distributed to the book trade in the U.S. by:
Publishers Group West, 1700 Fourth Street, Berkeley, California 94710

Distributed in Canada by:
Jaguar Book Group, 100 Armstrong Avenue, Georgetown, Ontario M6K 3E7 Canada

Printed in the United States of America

This book is also sold through www.Amazon.com, www.Fatbrain.com and
www.BarnesAndNoble.com

Distributed to the book trade in the U.S. and Canada by Publishers Group West
1700 Fourth St., Berkeley, CA 94710
Fax: 408-848-5784
cmp@rushorder.com

ISBN Number 1-57820-307-4

March 2003

Nineteenth Edition

Matt Kelsey, Publisher
Ray Horak, Senior Contributing Editor
Saul Roldan, Cover Artist
Lisa Giaquinto, Project Manager
Brad Greene, Text Layout

Shared Screens A multimedia concept. Shared screen applications enable two or more workstations to display the same screen simultaneously. For example, two users sharing a screen can work on the same spreadsheet. Changes made by one user can be seen by the other as they are made. Shared screens can be implemented in two ways. One way enables people to view each other's screen while one person makes changes. The other way enables people to run the same application on both screens so that both users can make changes simultaneously.

Shared Services Providing PBX-based communications and processing services to the unaffiliated tenants and/or the building manager/owner of a commercial building in a standalone or campus environment.

Shared Tenant Services Providing centralized telecommunications services to tenants in a building or complex.

Shared Video Memory Traditionally, PCs used a special bank of memory for the video circuitry, called Video RAM, or VRAM, that was separate from the main memory used for all the other tasks the computer performs. Having separate memory in a separate location is a good thing. However, some cheaper PCs steal part of main memory for use with their video circuitry. This can impair performance by degrading the amount of main memory the computer can use. Because of that, computer ads often reveal only in tiny type that the video memory is shared. Walt Mossberg of the Wall Street Journal warns that "a related jargon term is "integrated graphics" or "integrated video." This refers to a cheaper, less capable type of video circuitry that is bolted onto the computer's main circuit board rather than residing on a separate video card."

Shared Whiteboards A multimedia concept. Shared whiteboards enable you to "mark-up" a screen using a mouse or stylus input device and have the results show on other screens, often communicating over long distance telephone lines. The concept is similar to a traditional whiteboard mark-up process where everyone has a different color marking pen to circle, write, or cross out items. The background board can be a window from the workstation such as a spreadsheet, image, or blank canvas, or it can be the entire workstation screen. The shared whiteboard can be used for either real-time or store-and-forward collaboration. In the store-and-forward scenario, the mark-ups can be implemented in a time-delayed fashion so everyone can follow the entire step-by-step process.

Shared Wireless Access Protocol See SWAP.

Shareware Imagine you write software. You've just written a great program. You now want to sell it. You have two choices. You can take advertisements, sell it to retailers, get distributors to carry it, hire salespeople, etc. In other words, go the commercial route. This is expensive and requires a major marketing / sales budget. The other choice is to go the Shareware route. This involves giving away your software on various bulletin boards, on many Web sites, in "shareware" direct mail catalogs. People download the software for free and try it. If they like it, they will send you money. They will do this because you offer them an instruction manual, a new version of the software that doesn't blast "unregistered" on the splash screen when you load the software, or an upgraded version of the software, with more features, or a chit that assuages your guilt at using unpaid-for software that someone worked real hard on.

SHARP Self Healing Alternate Route Protection. A system typically employing redundant cables (often fiber) that carry traffic between two separate local exchange carrier offices along divergent paths.

SHDSL Symmetric High-Bitrate Digital Subscriber Loop, the first multi-rate, symmetric digital subscriber loop to be standardized. SHDSL enables symmetrical data transmission of 192 kBps to 2.3 MBps on a single copper wire pair or 384 kBps to 4.6 MBps on two pairs. Hence, it supports applications previously supported by E1 and T1 ISDN and by HDSL and SDSL. The relevant recommendations on SHDSL are ITU G991.2, ETSI TS 101-524 and ANSI T1E1.4/2001-174 G.SHDSL.

Shear A computer imaging term. A tool for distorting a selected area vertically or horizontally.

Sheath The outer jacket (usually metal or plastic) surrounding copper and fiber cables that prevents water damage to the cables inside.

Sheath Miles Let's say that you have two sheaths of fiber, each of which contains ten fibers and runs for one mile. That is one route mile (total distance of all fibers), two sheath miles (two sheaths running one mile), and twenty fiber miles (20 fibers running one mile).

Shelf Life The useful life of components when not in use — such as being stored on a shelf as spare parts or in a warehouse awaiting shipment. Batteries tend to have the shortest shelf life of most telecommunications components. Today, the shelf life is less a problem of shelf decay and more a problem of technological obsolescence.

Shelf Registration A shelf registration is a filing by a corporation that awaits approval from the Securities and Exchange Commission with no specific dates of the offering. Essentially the SEC approves the deal with a wide latitude but no particular timeframe. A shelf registration could also give the issuer, the corporation, a wide ability to issue either debt or equity.

Shelfware Software that is bought, then placed on the shelf, but never used. In the June 17, 2002 issue of Business Week, AMR Research, Inc. argued that only half the corporate software bought

the Spring of 2002 many IT professionals See also feedware, hookemware, hyperware, meetware, seedware, shovelware, smokeware sideware and vaporware.

Shell An outer layer of a program that provides the user interface, or the user's way of commanding the computer. Instead of presenting the user with a bland C prompt, i.e. C> the shell presents a list of programs that the user can choose from, making it easier, allegedly, to figure out which program to run. The problem with shells is that they often take up precious memory. That memory might better be used in actually running a program faster, or more efficiently.

Shell Account An Internet term. A type of interface on a dial up connection in which you log in to the host computer and use a command shell to get to the Internet. Shell accounts are typically text-based-only interfaces controlled by host servers which normally don't allow for use of graphic Web browsers.

Sheriff Sheriff is a word that originated from Shire Reeve. During early years of feudal rule in England, each shire had a reeve who was the law for that shire, that is, he was the "shire reeve." When the term was brought to the U.S. it was shortened to "sheriff."

Shield A metallic layer consisting of tape, braid, wire or sheath that surrounds insulated conductors in shielded cable. The shield may be the metallic sheath of the cable or the metallic layer inside a nonmetallic sheath. Shields reduce stray electrical fields and provide for safety of personnel. See Shield Effectiveness, Screen, and Microwave Absorber.

Shield Effectiveness The relative ability of a cable shield to screen out undesirable radiation. Frequently confused with the term shield percentage, which it is not.

Shielded Pair Two insulated wires in a cable wrapped with metallic braid or foil to prevent the wires acting as antennas and picking up external interference (e.g. a local TV station).

Shielded Twisted Pair A cabling system comprising wires which are separately insulated, and twisted together in a spiral manner. In addition, each pair is wrapped with metallic foil or braid, designed to insulate (i.e., shield) the pair from electromagnetic interference. See STP for a full explanation. See also SSTP.

Shielding 1. The metal-backed mylar, plastic, teflon or PVC that protects a data-communications medium such as coaxial cable from Electromagnetic Interface (EMI) and Radio Frequency Interference (RFI).

2. The process by which electrical conductors are wrapped with metallic foil or braid to insulate them from interference and thus provide high quality transmission. Many devices can cause interference to cables (i.e. multiple conductors) carrying telecommunications conversations. Such things include high voltage AC power lines, machinery with motors, machines which make rays of some type (X-Ray systems, TV sets etc.). By wrapping conductors around the cable cores, these cables are less likely to be effected by these outside forces and the noise they create on telephone lines. Shielding will also lessen the chance that the information movement along the cable will interfere with signals on other, adjacent cables. The need for shielding stems from this phenomenon: If you send an electrical signal along one pair of cables, those cables will give off a small amount of electrical energy — called magnetic radiation. That radiation will cause electromagnetic interference with a cable close by. If you "shield" the pair carrying the electrical signal, you will cut down the susceptibility of those cables to interference from other cables. LANs should always be installed with the best quality shielded cable. They will run better with shielded cable. Never skimp on the quality of the cable you're installing for LANs. Most telephones don't require shielded cable unless the cable serving them is passing through some area of high electromagnetic interference.

Shift 1. The movement of data to either the right or the left of an existing position in a data field. 2. The code control function of converting the characters from upper to lower case, or vice versa.

Shift and Shaft To shift programs to a lower level of government without providing the means with which to pay for those programs.

Shift Button This button acts exactly like a Shift button on a typewriter or comput-